

REMARKS

Claims 1, 3-19, 21-40 and 43-45 are pending in the present application. Claims 7-13, 15-17, 19, 22-29 and 31-40 have been withdrawn. Claims 1, 30, and 45 have been rejected under § 103 as being unpatentable by Blake et al. (US 6,847,904) (Blake) in view of Nalbantis (US 2004/0148553). Claims 3-4, 14, 18, 20 and 43-44 have been rejected under § 103 as being unpatentable by Blake in view of Nalbantis and further in view of Tomasz (US 6,400,416). Claims 5-6 have been rejected under § 103 as being unpatentable by Blake in view of Nalbantis and further in view of Richard et al. (US 6,894,266) (Richard). Claims 5-6 have been rejected under § 103 as being unpatentable by Blake in view of Nalbantis and further in view of Collins et al. (US 5,724,009) (Collins). Claim 21 has been rejected under § 103 as being unpatentable by Blake in view of Nalbantis and Tomasz, and further in view of Collins.

As mentioned, independent claims 1 and 30 have been rejected under § 103 as being unpatentable by Blake in view of Nalbantis.

Amended claim 1 recites an RF power amplifier formed using an integrated circuit having a plurality of interface pins, comprising "a power amplifier circuit," "a mode selection pin for selecting a first mode or a second mode of operation, wherein the first mode of operation is a serial interface mode and the second mode of operation is a non-serial interface mode," "a first interface pin, wherein the first interface pin has a first function in the first mode of operation and a second function in the second mode of operation," and "a serial interface formed using the integrated circuit for sending and receiving signals."

Blake discloses a programmable gain amplifier. Blake shows an op-amp 102 formed on an integrated circuit 100. The integrated circuit 100 includes a serial peripheral interface 106. Blake does not teach or suggest a mode selection pin that is used to select first or second modes

of operation, or wherein the first mode of operation is a serial interface mode and the second mode of operation is a non-serial interface mode. In addition, Blake does not teach or suggest an interface pin that has different functions in first and second modes of operation. An advantage of one example of a power amplifier of the present invention is that it can operate using a serial interface, or with a non-serial interface, where one or more pins have different functions, depending on the mode selected.

The Office Action states that Blake "teaches a chip select CS pin for controlling functions either in the 'shifting data' mode or in the 'latching' data mode," and that the chip select CS pin would "act as the mode control pin SEN taught by Nalbantis". First, assuming that the chip select CS pin of Blake is used as a "chip select" input in the conventional sense, the purpose of the chip select CS pin is to tell the chip when input changes (e.g., in serial data input SI) are meant for it, versus other chips. If CS changes states, the functions of the interface pins remain the same (e.g., SI is still a serial data input pin, SO is still a serial data output pin, and SCK is still a serial clock input pin). Likewise, in Nalbantis, the SEN signal merely tells the shift register 42 whether to store or shift bits in response to a transition of the serial clock SCLK. Like with Blake, when SEN changes states, the functions of the interface pins remain the same (e.g., SDATA is still a serial data input pin and SCLK is still a serial clock input pin).

For at least these reasons, applicant asserts that amended claim 1 is allowable over the prior art. Since dependent claims 3-6 depend from amended claim 1, it is also believed that these claims are allowable over the prior art.

Amended claim 30 recites a method of controlling an RF power amplifier in a wireless communications device, comprising "providing a baseband controller coupled to a digital bus," "providing an RF power amplifier having a serial interface for communicating with the digital

bus and having a mode control pin," "applying a control signal to the mode control pin to select between a first mode of operation and a second mode of operation, wherein the first mode of operation is a serial interface mode and the second mode of operation is a non-serial interface mode," "providing a first interface pin, wherein the first interface pin has a first function in the first mode of operation and a second function in the second mode of operation," and "coupling the serial interface of the RF power amplifier to the digital bus."

Amended claim 30 recites a similar limitation as claim 1 and therefore, for at least the reasons set forth above with respect to claim 1, applicant asserts that claim 30 is allowable over the prior art. Since dependent claims 42-45 depend from amended claim 30, it is also believed that these claims are allowable over the prior art.

As mentioned above, independent claim 14 has been rejected under § 103 as being unpatentable by Blake in view of Nalbantis and further in view of Tomasz.

Amended claim 14 recites a wireless communication device comprising "a controller circuit adapted to control the operation of the communication device," "a transceiver," "an RF power amplifier having a mode control pin and a plurality of interface pins, wherein the state of the mode control pin determines whether the RF power amplifier operates using a serial interface mode or a non-serial interface mode, and wherein the plurality of interface pins provide a serial interface with the controller circuit in the serial interface mode and the plurality of interface pins provide a non-serial interface with the controller circuit in the non-serial interface mode," and "a serial bus coupled to the controller, transceiver, and RF power amplifier."

First, amended claim 14 recites a similar limitation as claim 1 and therefore, for at least the reasons set forth above with respect to claim 1, applicant asserts that claim 14 is distinguishable over Blake and Nalbantis. The Office Action states that Tomasz teaches a method

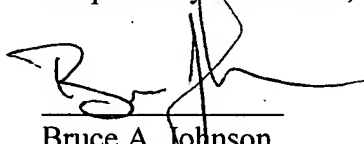
for adjusting the gain of an amplifier, and that the gain may be adjusted either by a dedicated external pin or via a serial bus. Still, Blake in view of Nalbantis and further in view of Tomasz does not teach an RF amplifier as recited in claim 14, for example, an RF amplifier where a plurality of interface pins provide a serial interface with the controller circuit in a serial interface mode and provide a non-serial interface with the controller circuit in a non-serial interface mode.

For at least these reasons, applicant asserts that amended claim 14 is allowable over the prior art. Since dependent claims 18 and 21 depend from amended claim 14, it is also believed that these claims are allowable over the prior art.

It is respectfully submitted that all claims are patentable over the prior art. It is further more respectfully submitted that all other matters have been addressed and remedied and that the application is in form for allowance. Should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Bruce A. Johnson, Applicants' Attorney at 512-301-9900 so that such issues may be resolved as expeditiously as possible. Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 to deposit account number 50-3864 (Johnson & Associates).

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Date

Respectfully Submitted,


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